

**Abstract**

The invention relates to a radial fan with a casing and in it an axially placed wheel, wherein the casing has an axially placed air inlet, an exhaust (5), a bottom section (6) with a bottom reference surface (7) arranged orthogonally to the axis and a spirally  
5 shaped compression space located radially around the wheel that extends to the exhaust port; and wherein the wheel has a cover disk that faces the air inlet port and a supporting disk; wherein the radial fan is characterized in that the spiral-shaped compression space (8) expands both in a radial direction from the axis towards the exhaust  
10 port (6) as well as in an axial direction; wherein the axial expansion extends over at least 180° of the spiral circumference; and in which a hollow cylindrical cup-shaped section (9) is recessed in the bottom section (6) in an axial direction beyond the bottom reference surface (7) into which the wheel is placed in such a way that an inside of the supporting disk of the wheel runs flush with the bottom reference surface (7).